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CI --31. The nucleotide sequence of claim 2, wherein said gene of interest is selected from the group consisting of endoglucanase II, β -mannanase, laccase, and modified thermophilic xylanase.

32. The nucleotide sequence of claim 1, wherein said xylanase secretion signal is a family 11 xylanase secretion signal.

33. The nucleotide sequence of claim 1, wherein said xylanase secretion signal is a xylanase II secretion signal.--

REMARKS

Claims 1, 3, 5 and 10 have been amended. New Claims 31 to 33 have been added and a \$27.00 check for three additional claims (small entity) is attached. Therefore, Claims 1-33 are currently pending in the present application.

Claim 1 has been amended to state that the gene of interest is not native to the xylanase secretion signal. Support for this amendment may be found throughout the application, and specifically within Example 1-38 where constructs comprising a xylanase secretion signal in operative association with non-native genes of interest are disclosed.

Claims 3 and 10 have been amended to correct several typographical errors. The correct spelling of *Gliocladium* has been included into claim 5. Similar corrections have been made to pages 7 and 10. Claim 5 has been amended to define the marker as a selectable marker. Support for this amendment may be found on page 18, first sentence of the bottom paragraph.

Support for new claim 31 may be found on page 17, 2nd paragraph, and page 19, 1st paragraph. Note also and specifically that specification examples 22-25 and 30-31 teach constructs comprising, and for the expression of, endoglucanase II; examples 26-29 teach constructs comprising, and for the expression of, β -mannanase; examples 32-33 teach constructs comprising, and for the expression of, laccase; and examples 36-38 teach constructs comprising, and for the expression of, modified thermophilic xylanase.

Support for new claim 32 may be found on page 13, 2nd paragraph, which teaches that the xylanase secretion signal may be a secretion signal obtained from a Family 11 xylanase gene. Likewise, support for new claim 33 may be found on page 13, second paragraph, which teaches that the secretion signal may be obtained from a xylanase II gene.

The Examiner has suggested that claim 2 be amended to rename the regulatory region of the genes encoding endoglucanses. Applicant respectfully disagrees with Examiners suggestion. These terms are definite, and repeatedly are used, and defined, within the application. See for example, page 12, 2nd paragraph and page 17, 2nd paragraph, and elsewhere. Therefore, withdrawal of the terminology objection to claim 2 is requested.

Objections under 35 U.S.C. § 112

Claim 3 is objected to under 35 U.S.C. §112, second paragraph as being indefinite. The Examiner asserts that the phrase “pharmaceutical, nutraceutical, industrial, an animal feed, a food additive” is not defined. Applicant directs the Examiner’s attention

to page 14, 3rd paragraph, in the section labeled "The gene of interest", where it is defined that a protein of interest may be a pharmaceutically active protein and a list of such proteins is also provided. This paragraph includes definitions for the terms "industrial enzyme" and "nutraceutical", as an animal feed or food additive. Therefore, applicant requests withdrawal of the objections under 35 U.S.C. § 112 against claim 3.

Rejection under 35 U.S.C. § 102

The Examiner rejected claims 1-30 under 35 U.S.C. § 102(b) as being anticipated by the Oy Alko published application in the name of Suominen et al. (WO 93/24621), on the grounds that Suominen et al disclose a nucleotide sequence comprising a cbhI promoter, and intervening sequence, a xylanase I signal sequence, and a xlnI gene. Applicant respectfully traverses this rejection.

There is no teaching within Suominen et al of the use of a xylanase secretion signal in combination with a promoter or a non-native xylanase gene, as now pointed out within amended claim 1. Nor is there the teaching of the use of a xylanase II secretion signal for the production of a gene of interest, as presented in new claim 33. It is only the present application which demonstrates an increase in the production of a variety of genes of interest that are not-native to a xylanase secretion signal, see for example, Examples 19 to 33. The Examiner must guard against the use of hindsight, when interpreting the Suominen reference.

Applicant respectfully submits that Suominen et al. in truth only relates to a technique for production of a xylanase I protein that is native with respect to the

xylanase I secretion signal (See in particular, example 4, and page 61 of Suominen et al.).

There is no disclosure relating to production of any other gene of interest disclosed within Suominen et al. In the present specification, Applicant has taught with great specificity how to prepare, and produce a range of different genes of interest that are not native with respect to a xylanase secretion signal, and including specifically β -glucosidase, β -mannanase, endoglucanase II, laccase I and a modified xylanase.


Applicants submit that the Suominen et al reference do not teach anything about the production of a gene that is not normally associated with a xylanase secretion signal.

Applicants therefor respectfully submit that amended claim 1, and new claims 31 to 33 are not anticipated in view of any teachings found within Souminen et al. Withdrawal of the initial rejections under 35 U.S.C. § 102(b) and an early Notice of Allowance for all claims 1-33 is respectfully requested. The filing of formal drawings will follow, as claims are allowed.

Finally, the Examiner is asked to acknowledge receipt and consideration of the Information Disclosure Statement which was filed on December 17, 1999.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at 202-530-1010 or by facsimile at 202-530-1055. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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